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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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STATTLER JOHANSEN & ADELI  
P O BOX 51860  
PALO ALTO, CA 94303

EXAMINER
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NALVEN, ANDREW L

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 03/03/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/451,575

Applicant(s)

SIT ET AL.

Examiner

Andrew L Nalven

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-21 are pending.
2. Amendment received 21 January 2004 has been entered and considered.

### ***Response to Arguments***

3. Applicant's arguments filed 21 January 2004 have been fully considered but they are not persuasive.

4. The Examiner contends that the Bisbee reference (Bisbee et al US Patent No 6,237,096) does teach the limitations defined in amended independent claims 1, 11, and 21 and thus maintains the rejection of claims 1, 11, and 21 based upon the Bisbee reference. Bisbee teaches the steps of storing a database comprising a plurality of records (Bisbee, Figures 3 and 4, "RDBMS"), receiving a store procedure with data from a client of the database (Bisbee, column 6 lines 43-59, column 9 lines 58-60, column 10 lines 8-12), in response to the store procedure receiving a digital certificate for the client (Bisbee, column 10 lines 11-12), receiving a private key for the client (Bisbee, column 11 lines 15-20, Figure 8), generating a signature from the data, digital certificate, and private key of the client (Bisbee, column 11 lines 15-20, Figure 8), and storing the signature object as at least a portion of one of the records in the database (Bisbee, column 10 lines 32-35).

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5. Applicant has argued on Page 15 that Bisbee does not anticipate the claimed invention because the present invention is directed to the generating of a signature in response to a store procedure and storing the signature in a database record while Bisbee discloses transmitting the signed document to the authentication center. Examiner maintains that Bisbee et al does teach to the generating of a signature in response to a store procedure and storing the signature in a database record (see paragraph 4 above). Examiner acknowledges that Bisbee does teach the transmitting of the signed documents to an authentication center; however, the authentication center includes a database (Bisbee, Figures 3 and 4) and receives the documents from a transfer agent or client that Bisbee defines as "a document's originator" (Bisbee, column 5 lines 35-36).

6. Applicant has argued on Page 16 that Bisbee does not anticipated the claimed invention because claims 1, 11, and 21 recite limitations to generate a signature from data, digital certificate, and private key of the client while Bisbee teaches the authentication center signing a previously signed document. Examiner contends that Bisbee does teach the generating of a signature by the transfer agent (client) from data, digital certificate, and private key of the client (Bisbee, column 11 lines 15-20, Figure 8).

7. Applicant has argued on Page 17 that Bisbee fails to teach the limitations for executing a store procedure that invokes a process to sign a document and store the signed document in a database record. Examiner contends that Bisbee does teach the executing of a store procedure to sign a document and store the signed documents in a database record (Bisbee, column 6 lines 43-59, column 9 lines 58-60, column 10 lines

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8-12). Examiner has interpreted Bisbee's process of creating a document, transferring the client signed document to the authentication center (database), and subsequent storage (Bisbee, Figure 7) as a store procedure invoked to sign a document and store the signed document in a database record.

8. Applicant has argued on Page 17 that the Date reference ("Introduction to Database Systems") provides no suggestions of combining the teaching of a database with a digital signature service. Examiner contends that Date merely teaches the specifics of implementing a database such as one disclosed by Bisbee (Figures 3 and 4). Further, applicant has argued against the reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

9. The rejection found below is identical to that found in non-final rejection mailed 11 August 2003.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-2, 5-6, 11-12, 15-16, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Bisbee et al US Patent No. 6,237,096. Bisbee discloses a system and method for electronic transmission, storage, and retrieval of authenticated documents.

12. With regards to claims 1, 7 and 11, the disclosed system includes a transfer agent (client) that sends a digital document along with a digital signature to an Authentication Center (column 6, lines 46-54). After receiving and verifying the data from the client, the server appends a digital signature to the data (column 6, lines 60-63) and then stores the digitally signed documents (column 7, lines 5-8). The authenticated information objects (digital signature objects) disclosed by Bisbee consist of a digital signature of the first party (client), a digital certificate of the first party, a digital certificate from the trusted repository, and a digital signature from the trusted repository (column 3, lines 9-14). The authenticated information objects are stored under the control of the trusted repository (column 3, lines 16-19).

13. With regards to claims 2 and 12, in the disclosed system a client can make a query to the server to transfer a data object (column 12, lines 53-54). The information object is then transmitted using secure electronic means (column 12, lines 61-64). The secure electronic means include processing by way of a signature validation step to

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verify the signatory as well as the integrity of the transmitted data (column 11, lines 28-40).

14. With regards to claims 5-6 and 15-16, Bisbee discloses a single serialized object in Figure 9. The figure shows a single object including the document data, signature, and certificate in a sequential format.

15. With regards to claim 21, Bisbee discloses a system in Figure 3 that includes input lines from a plurality of clients into an authentication center that includes a remote database management system (RDBMS). The authentication center produces signature objects as previously described.

### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 3-4 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al US Patent No. 6,237,096 in view of Date "An Introduction to Database Systems". Bisbee discloses a system and method for electronic transmission storage and retrieval for authenticated documents. With regards to claims 4 and 14, Bisbee's disclosed system includes a signature validation step in which a certificate and

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signature appended to the document are extracted and used to determine message integrity and to verify the signatory of the data (column 11, lines 28-40). With regards to claims 3 and 13, Bisbee lacks a reference to querying based upon digital signature criteria. Date teaches that databases can be queried by using row or column sub-setting operations (Paragraph 4). Figure 1.8 (page 23) illustrates the retrieval of a subset of records based upon certain criteria. Any data in the table may be used as criteria for the database query. In the case of the instant invention, a database table comprising a document, signature, and certificate may be searched for records containing a specific signature. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Date's method of querying for user signature data as it would allow the user to find all documents created by the same signatory or signed by the same digital signature.

18. Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al US Patent No. 6,237,09. With regards to claims 9-19, Bisbee's disclosure as previously described lacks a reference to a second certificate and signature from a second source being used to create a second signature object. However, Bisbee's disclosure does show the steps of applying a certificate and signature to a "document" (Figure 9 and column 11, lines 15-27). Applying a certificate and a signature to a first signature object as defined by the claims would generate a second signature object. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to treat a first signature object as a document and reapply the steps of signing and certifying in order to add additional



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protection measures to the document and to allow the adding of additional signatories.

With regards to claims 10 and 20, Bisbee's disclosure lacks a reference to the validation of a first signature object using a second signature and a second certificate. Bisbee's disclosure does include references to the validation of an authenticated information objects (digital signature objects) as described above. The first signature object as defined by the claim could be treated as the data portion of the authenticated information object and processed and validated as such. Upon validation of the first signature object using the second signature, the first signature object could then undergo the same process using the certificate and signature included in the object. Bisbee teaches that the application of a second certificate and second signature can be used to transfer ownership of a document to a new entity (column 13, lines 11-15). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to treat a first signature object as a document and reapply the steps of processing and validation in order to provide an extra layer of protection against data corruption and to provide a method for transferring ownership of a document.

19. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al US Patent No. 6,237,096 in view of Ramasubramani US Patent No. 6,233,577. Bisbee discloses a system and method for electronic transmission storage and retrieval for authenticated documents as described above. Bisbee lacks a disclosure regarding storing certificates in columns of a database table.

Ramasubramani discloses a centralized certificate management system that includes user accounts kept in a database (column 7, line 26) in which certificates are stored

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(column 7, lines 10-15). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Ramasubramini's method of storing certificates in user identification accounts as it would help reduce the latency in querying the database for certificates.

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Nalven whose telephone number is 703 305

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8407. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on 703 308 4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Nalven

ALN

  
GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100